



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[EPA-HQ-SFUND-1995-0005; FRL-9993-38-Region 4]

National Oil and Hazardous Substances Pollution Contingency Plan;

National Priorities List: Deletion of the Tennessee Products Superfund Site

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule; notice of intent.

SUMMARY: The Environmental Protection Agency Region 4 is issuing a Notice of Intent to Delete the Tennessee Products Superfund Site (Site) located in Chattanooga, Tennessee, from the National Priorities List (NPL) and requests public comments on this proposed action. The NPL, promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, is an appendix of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The EPA and the State of Tennessee (State), through the Tennessee Department of Environment and Conservation (TDEC), have determined that all appropriate response actions under CERCLA, other than Five-Year Reviews, have been completed. However, this deletion does not preclude future actions under Superfund.

DATES: Comments must be received by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID no. EPA-HQ-SFUND-1995-0005, by one of the following methods:

- <http://www.regulations.gov>. Follow on-line instructions for submitting comments.

Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

- Email: Zeller.Craig@epa.gov
- Mail: Craig Zeller, Remedial Project Manager
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303
- Hand delivery: U.S. EPA Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303. Such deliveries are accepted only during the Docket's normal hours of operation (Monday through Friday, 9:00 a.m. to 5:00 p.m.), and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID no. EPA-HQ-SFUND-1995-0005. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through <http://www.regulations.gov> or e-mail. The <http://www.regulations.gov> Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through <http://www.regulations.gov>, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in the hard copy. Publicly

available docket materials are available either electronically in
<http://www.regulations.gov> or in hard copy at:

U.S. EPA Region 4
Superfund Division
61 Forsyth Street, SW
Atlanta, Georgia 30303
Hours: Monday through Friday, 9:00 a.m. to 5:00 p.m.

Tennessee Department of Environment and Conservation
Division of Remediation
1301 Riverfront Parkway, Suite 206
Chattanooga, Tennessee 37402
Hours: Monday through Friday, 8:00 a.m. to 4:30 p.m.
Phone: 423-634-5745

FOR FURTHER INFORMATION CONTACT: Craig Zeller, Remedial Project
Manager, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW,
Atlanta, Georgia 30303; phone: 404-562-8827; email: zeller.craig@epa.gov.

SUPPLEMENTARY INFORMATION:

Table of Contents:

- I. Introduction
- II. NPL Deletion Criteria
- III. Deletion Procedures
- IV. Basis for Intended Site Deletion

I. Introduction

EPA Region 4 announces its intent to delete the Tennessee Products Superfund Site from the National Priorities List (NPL) and requests public comment on this proposed action. The NPL constitutes Appendix B of 40 CFR part 300, which is the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which EPA promulgated pursuant to section 105 of the Comprehensive Environmental Response,

Compensation and Liability Act (CERCLA) of 1980, as amended. EPA maintains the NPL as the list of sites that appear to present a significant risk to public health, welfare, or the environment. Sites on the NPL may be the subject of remedial actions financed by the Hazardous Substance Superfund (Fund). As described in 40 CFR 300.425(e)(3) of the NCP, sites deleted from the NPL remain eligible for Fund-financed remedial actions if future conditions warrant such actions.

EPA will accept comments on the proposal to delete this site for thirty (30) days after publication of this document in the *Federal Register*.

Section II of this document explains the criteria for deleting sites from the NPL. Section III discusses procedures that EPA is using for this action. Section IV discusses the Tennessee Products Superfund Site and demonstrates how it meets the deletion criteria.

II. NPL Deletion Criteria

The NCP establishes the criteria that EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate. In making such a determination pursuant to 40 CFR 300.425(e), EPA will consider, in consultation with the State, whether any of the following criteria have been met:

- Responsible parties or other persons have implemented all appropriate response actions required;
- All appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or

- The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, the taking of remedial measures is not appropriate.

Pursuant to CERCLA section 121(c) and the NCP, EPA conducts Five-Year Reviews to ensure the continued protectiveness of remedial actions where hazardous substances, pollutants, or contaminants remain at a site above levels that allow for unlimited use and unrestricted exposure (see Operation and Maintenance and Five-Year Review section below). EPA conducts such Five-Year Reviews even if a site is deleted from the NPL. EPA may initiate further action to ensure continued protectiveness at a deleted site if new information becomes available that indicates it is appropriate. Whenever there is a significant release from a site deleted from the NPL, the deleted site may be restored to the NPL without application of the hazard ranking system.

III. Deletion Procedures

The following procedures apply to deletion of the Site:

- A. EPA consulted with the State before developing this Notice of Intent to Delete;
- B. EPA has provided to the State 30 working days for review of this notice prior to publication of it today;
- C. In accordance with the criteria discussed above, EPA has determined that no further response is appropriate;
- D. The State, through its Department of Environment and Conservation, has concurred with deletion of the Site from the NPL (letter to EPA dated May 21, 2018);

- E. Concurrently with the publication of this Notice of Intent to Delete in the *Federal Register*, a notice is being published in a major local newspaper, *The Chattanooga Times Free Press*. The newspaper notice announces the 30-day public comment period concerning the Notice of Intent to Delete the site from the NPL; and
- F. The EPA placed copies of documents supporting the proposed deletion in the deletion docket and made these items available for public inspection and copying at the Site information repositories identified above.

If comments are received within the 30-day public comment period on this document, EPA will evaluate and respond appropriately to the comments before making a final decision to delete. If necessary, EPA will prepare a Responsiveness Summary to address any significant public comments received. After the public comment period, if EPA determines it is still appropriate to delete the Site, the Regional Administrator will publish a final Notice of Deletion in the *Federal Register*. Public notices, public submissions and copies of the Responsiveness Summary, if prepared, will be made available to interested parties and in the site information repositories listed above.

Deletion of a site from the NPL does not itself create, alter, or revoke any individual's rights or obligations. Deletion of a site from the NPL does not in any way alter EPA's right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist EPA management. Section 300.425(e)(3) of the NCP states that the deletion of a site from the NPL does not preclude eligibility for future response actions, should future conditions warrant such actions.

IV. Basis for Intended Site Deletion

The following information provides EPA's rationale for deleting the Site from the NPL.

A. Site Background and History

The Tennessee Products Superfund Site (TPS) is located in south Chattanooga, Hamilton County, Tennessee and is defined as 2.5-mile section of Chattanooga Creek that contained sediments contaminated primarily with polycyclic aromatic hydrocarbons (PAHs). During the early decades of the 20th Century, a coal carbonization (Coke) plant complex (named Tennessee Products) was responsible for waste disposal practices that led to the contamination of Chattanooga Creek sediments. Numerous discharges of contaminated water to Chattanooga Creek via tributaries, were documented. Results of previous investigations and subsequent evaluations indicated that existing conditions posed a potential unacceptable risk to human health, if exposure to the contaminated sediments were to occur.

The TPS Site was proposed for inclusion on the NPL in January 1994 (59 FR 2568) after completion of a multi-media investigation of Chattanooga Creek by the EPA and the issuance of a Health Advisory by the Agency for Toxic Substances and Disease Registry (ATSDR) in 1993. The Health Advisory concluded that “the presence of the coal tar in-and-around the creek poses a health and safety hazard.” The TPS Site was placed on the NPL on September 29, 1995 (60 FR 50435). The EPA CERCLIS ID Number for this Site is TND071516959.

Based on the ATSDR Health Advisory, the EPA initiated a non-time-critical removal of the most accessible coal tar deposits along the upper reach of the Creek and

behind the former Southern Coke and Chemical plant site (the Coke Plant area). On September 26, 1996, the EPA issued an Action Memorandum approving a non-time-critical removal action (Phase I removal action) as described in the 1996 Engineering Evaluation/Cost Analysis (EE/CA). The Action Memorandum was amended on September 24, 1997, and on December 5, 1998, authorizing the expenditure of additional funding to address a larger volume of contaminated sediments in the Creek than previously estimated. Over the course of the eighteen months of the Phase I removal action, a total of 4,235 linear feet of Chattanooga Creek was excavated, along with three isolated tar pits located in the flood plain and adjacent to the former coke plant. The total material excavated was 25,350 cubic yards, of which 22,934 cubic yards came from the excavation of Chattanooga Creek. The removal action was completed in December, 1998.

B. Remedial Investigation and Feasibility Study (RI/FS)

The purpose of a remedial investigation is to determine the nature and extent of contamination at a site and the threat to public health and the environment from a release, or potential release of hazardous substances from a site. The remedial investigation for the TPS Site included reviewing historical information and collecting samples from the air, water, soil, sediment and waste. The remedial investigation focused on the plant site, although a number of samples were also collected from areas surrounding the creek. EPA decided not to collect many creek sediment samples for this investigation because the EPA had conducted a comprehensive study of the creek in 1992 (*Chattanooga Creek Sediment Profile Study*).

The purpose of the Feasibility Study was to determine the best cleanup remedy. The EPA conducted a Feasibility Study focused on cleanup alternatives for the portion of the contaminated creek not addressed during the Phase I Removal. Other much smaller

areas in the flood plain that were contaminated with coal-tar and its related chemicals were also addressed with the creek sediments.

The former plant property was not considered in the cleanup strategy for the Site, because the property was removed from the Tennessee Products NPL listing by Federal Courts. See the November 12, 1996, decision of the U.S. Court of Appeals for the D.C. Circuit in *Mead Corporation v. Browner (No. 5-1610)*. Therefore, no remedy was proposed for the plant property. The plant property was addressed through the State Superfund program (TCA 68-212-201). After the court ruling, the NPL listing for the Site included only 2.5 miles of the creek.

Based on the remedial investigation and the risk assessment, the remedy objectives were:

- Prevent human exposure to contaminated soil along the Northeast Tributary and contaminated sediment in Chattanooga Creek; and,
- Eliminate risks to aquatic life in Chattanooga Creek from exposure to contaminated sediment.

Six remedial action alternatives were considered for evaluation in the Focused Feasibility Study Report. They were: 1) Taking no action; 2) Re-routing the creek and encapsulating (solidifying) the contaminated sediment; 3) Excavating contaminated sediment and disposing of it in an on-site landfill; 4) Excavating contaminated sediment and treatment with on-site thermal desorption; 5) Excavating with on-site incineration; and 6) Excavating with off-site disposal and recycling.

C. The Selected Remedy

In September 2002, EPA Region 4 issued the Final Record of Decision (ROD) for the TPS Site. The ROD selected the remedial action for the Middle Reach

of Chattanooga Creek and a portion of the Northeast Tributary. The Middle Reach includes the bed and banks of Chattanooga Creek beginning 1,354 feet north of the 38th Street Bridge and extending to the confluence of Chattanooga Creek and Dobbs Branch, an approximate 1.9-mile section (the previous Non-Time Critical Removal Action addressed the upstream portion of the creek). Remediation of a dredged spoil pile located along the Northeast Tributary was also included in the ROD. The six remedial alternatives, including the no action alternative, were evaluated using nine criteria for remedy selection. Based on this evaluation, the EPA determined that excavating with off-site disposal and recycling (Alternative 6) was its preferred alternative for the Site. It provided the best balance of tradeoffs among the nine evaluation criteria and met the remedial goals by preventing future human contact with the coal-tar constituents and contaminated sediment in Chattanooga Creek. This remedy was used during the first phase of the cleanup (Non-Time Critical Removal) and was proven to be effective and efficient. Also, this was the only alternative considered to completely remove the waste material from the site. The remedy selected involved excavating coal-tar constituent waste and contaminated sediment beginning where the Phase 1 Cleanup ended (at 38th Street), to the confluence with Dobbs Branch. All of the contaminated sediment and waste in this segment of the creek was removed from the creek sides and bottom. Since the coal-tar contamination was easily identified by visual inspection, it was unnecessary to establish numerical cleanup standards. The cleanup was confirmed after a visual inspection of the work areas of the creek was performed. The scope of the remedy did not include groundwater, soil (other than specific areas containing tar waste), or surface water. The RI did not find contamination in those media requiring a remedial action.

D. Explanation of Significant Difference

In August of 2004, the EPA issued an Explanation of Significant Difference (ESD) to explain a change to a portion of the selected remedy. The remedy selected in the ROD was excavating with off-site disposal and recycling. The ESD changed the remedy to off-site disposal at the Bradley County Landfill. The recycling component of the remedy was eliminated due to the remedy encountering a larger volume of waste and the accompanying increase in costs.

E. The Remedial Action

The remedial action was implemented by dividing the creek into five segments, or creek channel reaches. In general, excavation of contaminated sediment and restoration activities occurred starting at the upstream segment and working downstream. The strategy for removal of sediments in the work area involved excavation in the dry. The creek dewatering process included installation of temporary coffer dams and pumping systems (large pumps and pipes) to route the creek water around the active reaches of excavation. The dams were constructed of clay and/or clean fill. The pumping systems were maintained twenty-four hours per day, seven days per week to keep the work areas dewatered. Contact between creek water and contaminated sediments in an active reach of excavation was minimized. However, water within the active stream reach that came in contact with excavated sediment was treated using an oil/water separator prior to discharge back into the creek.

Contaminated sediment from the creek channel was excavated until the remaining sediments were visually clean. Excavation activities began in October 2005 in Reach 1. Contaminated sediment was excavated from bank-to-bank, which was defined as the vegetative line at the edge of the creek; and, since limestone bedrock was not always

present to define the vertical extent, all visual signs of sediment contamination were removed, and test pits were excavated to confirm that no other visual contamination existed. Where visible contamination extended beyond the creek bank, a maximum of three feet was removed horizontally from the original bank. The bank was then backfilled with clean fill and stabilized. When these efforts were completed, the EPA, or the designated representative, inspected the work area and verified that the performance standard was achieved. The excavated reach was then approved by the EPA before restoration activities were completed and water was pumped back into that portion of the creek.

Excavation of the contaminated creek sediments was conducted in a manner to minimize handling and to contain the contaminated sediment within the creek before direct transfer to trucks for transport to a drying bed for stabilization. Typically, two excavators were in the creek reach working to transport sediment to a common area for load-out. Lime kiln dust (LKD) was added to the sediment in the creek to stabilize sediment that contained significant free liquids prior to loading into the truck. The mixture was allowed to cure for a period of time that was sufficient to promote drying before the sediment was loaded in trucks. These activities were performed as necessary to reduce spillage during loading of the trucks. The excavated sediments were then transported to drying beds located on the former Southern Wood Piedmont facility. Additional LKD was mixed into the sediment prior to transport to the Bradley County, Tennessee, landfill for final disposal. Approval by the TDEC Division of Solid Waste Management was required for disposal of special waste (contaminated sediment mixed with lime kiln dust) at the Bradley County Landfill. Disposal of the special waste from

the Site was approved on October 10, 2005. Recertifications for the 2006 and 2007 construction seasons were submitted and approved as well.

During excavation of a portion of the creek oxbow in January 2006, a black liquid was observed infiltrating the bottom of the excavation. Twelve inches of clay was placed in the first 250-foot section of the oxbow in an attempt to seal off the liquid. The seal did not work. This section of the creek is on property owned by Southern Wood Piedmont Company, which treated railroad cross-ties with creosote from 1924 to 1988. The black liquid resembled creosote and differed in physical characteristics from the coal-tar impacted sediments that were encountered in the upper reaches of the creek channel remediation. While the project was temporarily shut down because of high water conditions, the EPA performed a field investigation in March 2006 within and adjacent to Chattanooga Creek to evaluate this Non Aqueous Phase Liquid (NAPL). The general objectives of the investigation were to:

- Determine the horizontal and vertical extent of the NAPL in the oxbow section;
- Evaluate whether the presence of NAPL in the oxbow creates a potential for re-contamination;
- Assess NAPL transport pathways and potential sources of NAPL; and
- Evaluate the potential risks to human health and the environment posed by the NAPL.

The results of the EPA investigation were presented in a June 2006 document titled *Chattanooga Creek NAPL Assessment, Chattanooga, Tennessee*. Based on results of the investigation, the EPA determined that the Statement of Work and related work plans should be modified to address the changed site conditions encountered. The EPA determined that these modifications were necessary to achieve the Performance Standards

and to maintain the effectiveness of the remedy. In June 2006, the Statement of Work was modified to include design and installation of a protective isolation barrier in those sections of Chattanooga Creek where NAPL was encountered. This modification is consistent with the scope of the selected remedy, which included "stabilizing creek banks where necessary to minimize erosion or prevent contamination buried in the creek bank from re-entering the creek," as described in the Statement of Work. The objective of the protective isolation barrier was to minimize the potential for NAPL to recontaminate the restored creek channel.

The design for the isolation barrier included the use of AquaBlok®, which is a patented solid aggregate that is coated with a clay polymer that expands when hydrated. For the isolation barrier, a minimum 12-inch prepared subgrade soil layer was placed over the creek bed and banks to a level that was a minimum of three feet above the highest point of observed NAPL intrusion. The creek banks were graded or maintained at a maximum 3:1 slope. The protective isolation barrier was placed from where the creek crosses the Southern Wood Piedmont property to the confluence of Dobbs Branch, or approximately 5,750 linear feet of restored creek channel. A total of 308,878.3 square feet of isolation barrier, or approximately 7.1 acres, was installed. A combination of placing riprap and seeding was performed for creek bank stabilization. Restoration was consistent with the previous removal action at the upper reach of Chattanooga Creek. Areas of the creek bank where excavation of the bank had occurred or potential eroding locations (specifically on outer radius of curves) were stabilized by one of two methods. The first method included placement of a 6-oz non-woven geotextile covered by 6-inch riprap. The riprap was obtained from the temporary coffer dams or imported as required.

Other locations requiring stabilization were seeded for a more natural restoration method, as feasible.

A final total of 107,292 tons of contaminated sediment and debris were transported to the landfill for disposal over the course of the project in a total of 4,338 truck loads. The last load of stabilized sediment was transported from the Site to the landfill on September 4, 2007. Discarded tires found in the creek were removed and pressure washed. A total of 15.01 tons of tires were sent to a recycler in Nashville, Tennessee.

Operation and Maintenance and Five-Year Reviews (FYRs)

No long-term operation and maintenance or monitoring activities under CERCLA are required by the ROD or the RD/RA Consent Decree. Discretionary Five-Year Reviews will be conducted by the EPA to assess whether the protective isolation barrier continues to function as an effective engineering control to isolate the creek from the nearby NAPL source in the oxbow area. Operation and Maintenance and monitoring are the responsibility of the Southern Wood Piedmont facility under the Resource Conservation and Recovery Act (RCRA) through the Final RCRA Post-Closure Permit for the Southern Wood Piedmont facility, which is delegated to the TDEC. The triggering date for the discretionary Five-Year Review is five years from the formal authorization to proceed on October 12, 2005. There have been two FYRs in 2011 and 2016. EPA is conducting Discretionary Five-Year Reviews because a protective isolation barrier was installed to isolate the CERCLA remedy from adjacent areas where hazardous substances, pollutants or contaminants could remain above levels that allow for unlimited use and unrestricted exposure as defined by CERCLA. The most recent Five-Year Review was completed on September 26, 2016, and reported no issues

or recommendations. The 2016 Five-Year Review concluded that the remedy at the Tennessee Products Site remains protective of human health and the environment, both in the short term and long term. The site inspections and sampling events concluded that the AquaBlok® cap is functioning as intended. These reviews will continue until the NAPL under the creek is addressed through the September 2005 RCRA Post-Closure Permit for the Southern Wood Piedmont facility. No institutional controls were required by the ROD.

Community Involvement

Community involvement activities were conducted throughout the Non-Time Critical Removal and Remedial Action. Public notices and meetings were routinely held. An administrative record and information repository was placed in the community to provide accessible information about the activities at the Site. An advertisement will be placed in the *Chattanooga Times Free Press* announcing the deletion of the Site during the comment period. The community proposed a public park (greenway) along the bank of the creek during the remedial action, but no future plans for the development of the Site have been determined.

Determination that the Site Meets the Criteria for Deletion in the NCP

Region 4 has followed the procedures required by 40 CFR 300.425(e), and the implemented remedy achieves the degree of cleanup specified in the ROD for all pathways of exposure. The EPA confirmed that the sediment remedial action objectives and performance criteria were achieved. All cleanup actions specified in the ROD have been implemented. All selected remedial and removal action objectives and associated cleanup levels are consistent with agency policy and guidance, and are summarized in the Final Close-Out Report. This Site meets all the site completion requirements as specified

in Office of Solid Waste and Emergency Response (OSWER) Directive 9320.22, *Close-Out Procedures for National Priorities List Sites*. A Final Close-Out Report was issued by the EPA on September 26, 2008. A supplemental Final Close-Out Report was also issued by the EPA on March 4, 2019, confirming that the remedy was complete and met the remedial action goals of the ROD. No further Superfund response is needed to protect human health and the environment. The EPA, with concurrence of the State of Tennessee, has determined that all appropriate response actions under CERCLA have been completed. Therefore, the EPA intends to delete the Site from the NPL.

List of Subjects in 40 CFR Part 300

Environmental protection, Chemicals, Hazardous substances, Hazardous waste, Intergovernmental relations, Reporting and recordkeeping requirements, Superfund, Water pollution control.

Authority: 33 U.S.C. 1321(d); 42 U.S.C. 9601–9657; E.O. 13626, 77 FR 56749, 3 CFR, 2013 Comp., p. 306; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; E.O. 12580, 52 FR 2923, 3 CFR, 1987 Comp., p. 193.

Dated: April 22, 2019.

Mary S. Walker,
Acting Regional Administrator.

[FR Doc. 2019-09476 Filed: 5/7/2019 8:45 am; Publication Date: 5/8/2019]